FIG.1

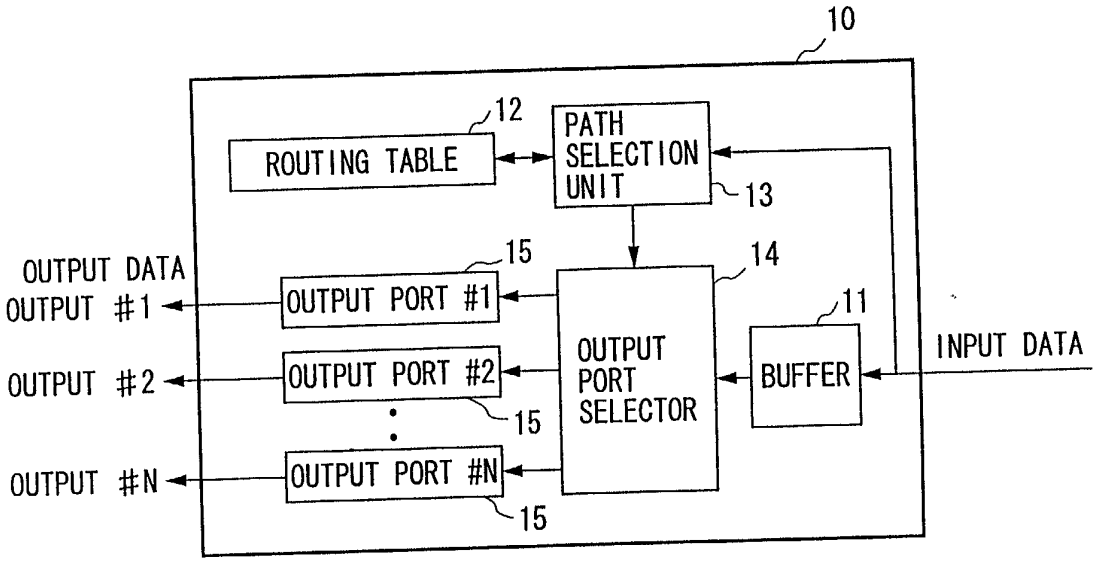
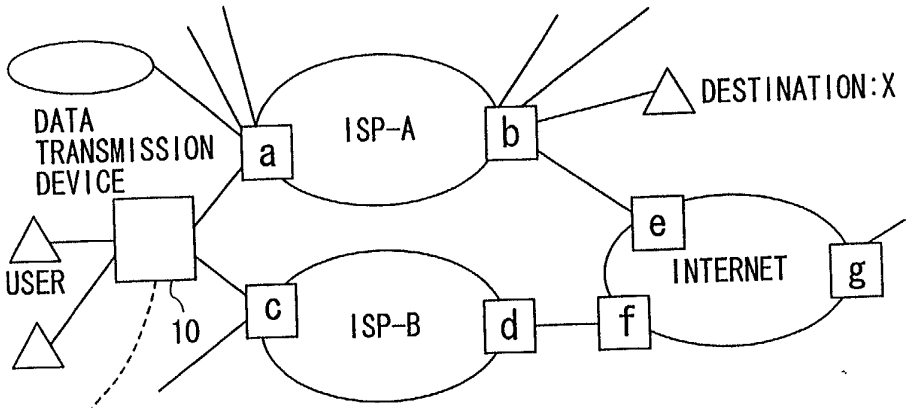

10
12
ROUTING TABLE
PATH SELECTION UNIT
13
15
14
OUTPUT DATA
OUTPUT #1
OUTPUT PORT #1
OUTPUT #2
OUTPUT PORT #2
OUTPUT PORT SELECTOR
11
BUFFER
INPUT DATA
15
OUTPUT #N
OUTPUT PORT #N
15

FIG.2



DESTINATION	HOST/NET	NEXT HOP	OUTPUT PORT	PRIORITY ROUTE
ISP-A	NET	a	1	*
ISP-B	NET	c	2	*
X	HOST	a	1	*
INTERNET	NET	a c	1 2	*

FIG.3

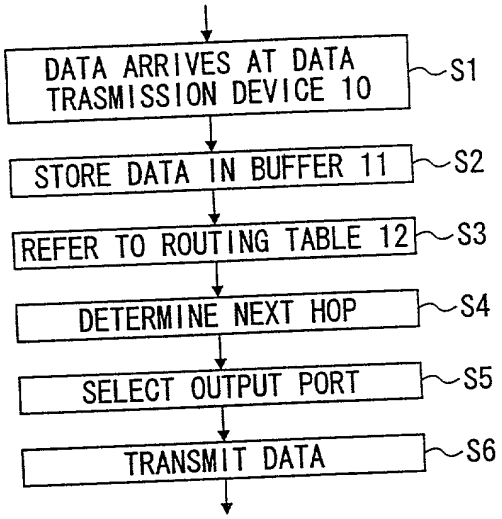

DATA ARRIVES AT DATA TRASMISSION DEVICE 10
S1
STORE DATA IN BUFFER 11
S2
REFER TO ROUTING TABLE 12
S3
DETERMINE NEXT HOP
S4
SELECT OUTPUT PORT
S5
TRANSMIT DATA
S6

FIG.4

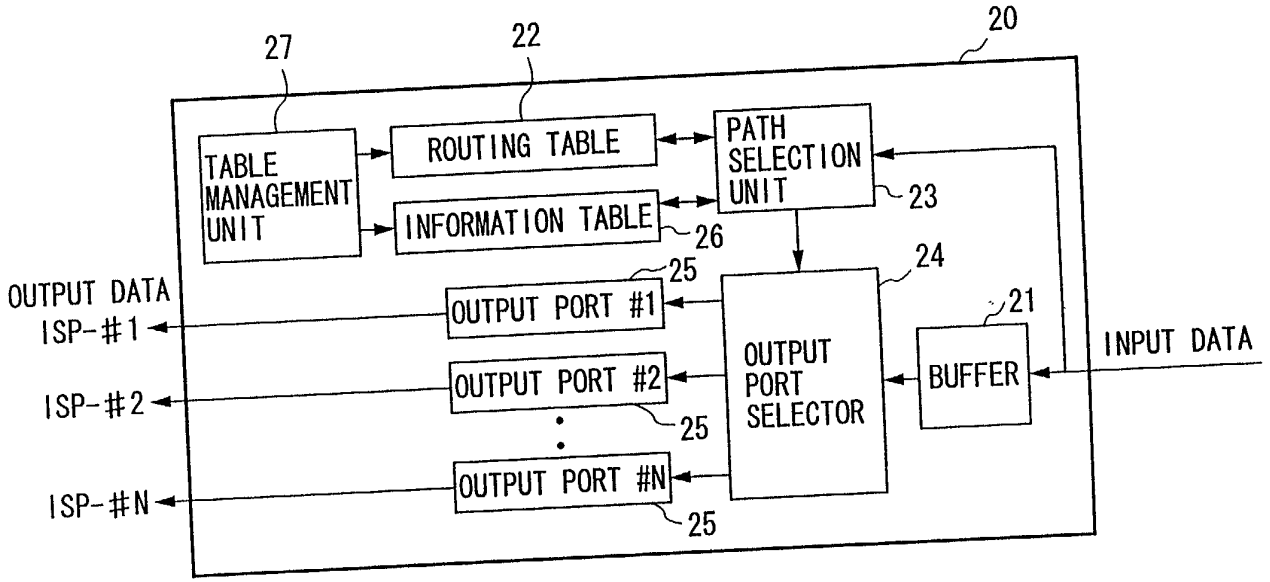

20
27
22
TABLE MANAGEMENT UNIT
ROUTING TABLE
INFORMATION TABLE
26
PATH SELECTION UNIT
23
24
25
OUTPUT PORT #1
OUTPUT PORT #2
25
OUTPUT PORT #N
25
OUTPUT PORT SELECTOR
21
BUFFER
INPUT DATA
OUTPUT DATA
ISP-#1
ISP-#2
ISP-#N

FIG.5A

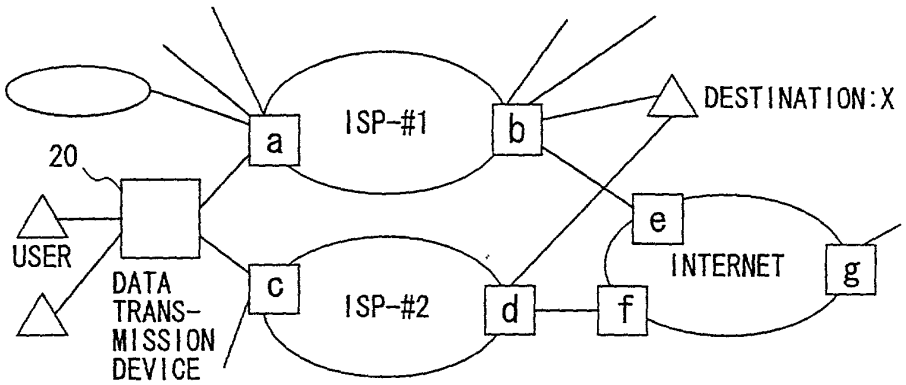


FIG.5B

DESTINATION	HOST/NET	NEXT HOP	OUTPUT PORT	MOST APPROPRIATE ROUTE
ISP-#1	NET	a	1	
ISP-#2	NET	c	2	
X	HOST	a c	1 2	*
INTERNET	NET	a c	1 2	*

FIG.5C

DESTINATION	"VIA" NETWORK	MESSAGE-PACKET RETURN PERIOD	FEE INFORMATION
X	ISP-#1	2	1
	ISP-#2	10	1

FIG.6

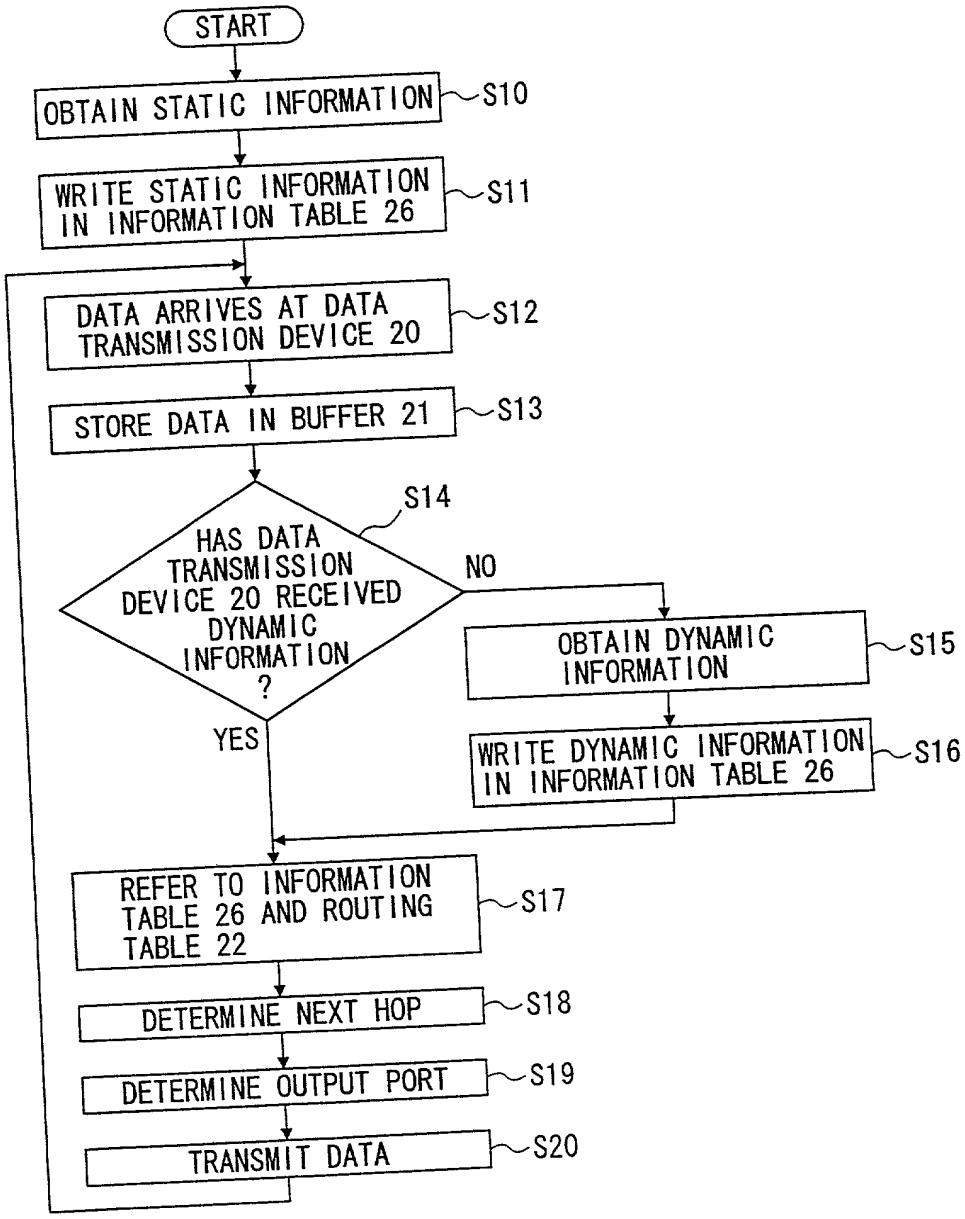

START
OBTAIN STATIC INFORMATION
S10
WRITE STATIC INFORMATION IN INFORMATION TABLE 26
S11
DATA ARRIVES AT DATA TRANSMISSION DEVICE 20
S12
STORE DATA IN BUFFER 21
S13
S14
HAS DATA TRANSMISSION DEVICE 20 RECEIVED DYNAMIC INFORMATION ?
NO
YES
OBTAIN DYNAMIC INFORMATION
S15
WRITE DYNAMIC INFORMATION IN INFORMATION TABLE 26
S16
REFER TO INFORMATION TABLE 26 AND ROUTING TABLE 22
S17
DETERMINE NEXT HOP
S18
DETERMINE OUTPUT PORT
S19
TRANSMIT DATA
S20

FIG.7

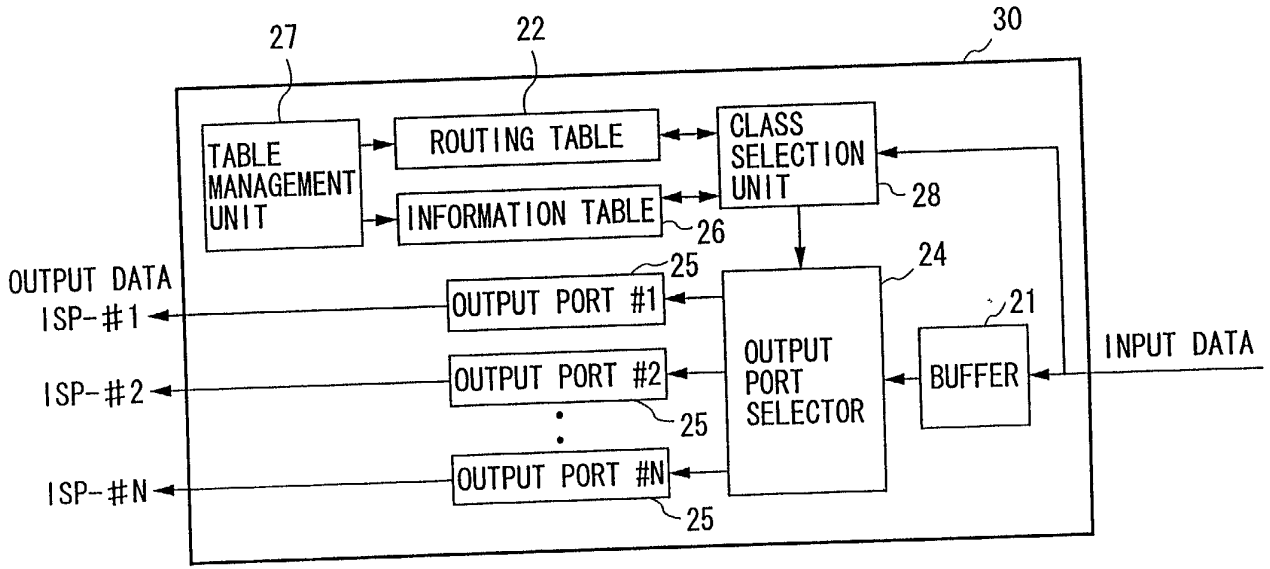

27
22
30
TABLE MANAGEMENT UNIT
ROUTING TABLE
INFORMATION TABLE
26
CLASS SELECTION UNIT
28
24
25
OUTPUT DATA
ISP-#1
OUTPUT PORT #1
OUTPUT PORT #2
ISP-#2
25
ISP-#N
OUTPUT PORT #N
25
OUTPUT PORT SELECTOR
21
BUFFER
INPUT DATA

FIG.8A

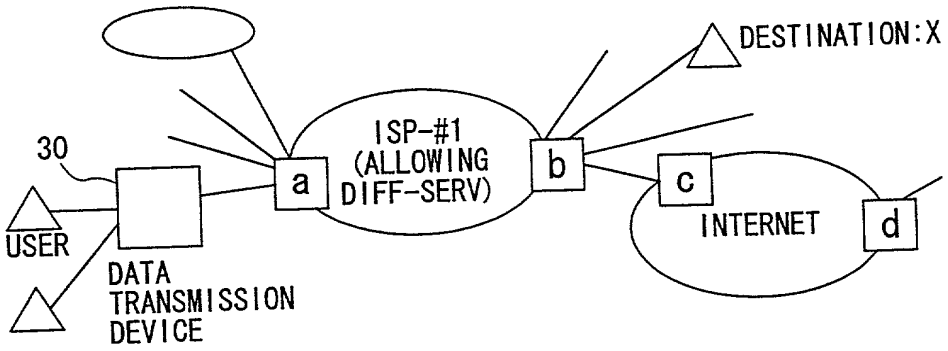

DESTINATION:X
30
ISP-#1
(ALLOWING
DIFF-SERV)
a
b
c
d
INTERNET
USER
DATA
TRANSMISSION
DEVICE

FIG.8B

DESTINATION	HOST/NET	NEXT HOP	OUTPUT PORT	SERVICE CLASS	MOST APPROPRIATE ROUTE	
					SPEED	FEE
ISP-#1	NET	a	1		*	*
X	HOST	a	1	EF-PHB AF-PHB BEST EFFORT	*	*
INTERNET	NET	a	1	EF-PHB AF-PHB BEST EFFORT	*	*

FIG.8C

DESTINATION	SERVICE CLASS	MESSAGE-PACKET RETURN PERIOD	FEE INFORMATION	VALUE FOR SPEED AS FIRST PRIORITY	VALUE FOR FEE AS FIRST PRIORITY
X	EF-PHB	1	20	22.1	46.4
	AF-PHB	4	10	20.9	27.4
	BEST EFFORT	20	1	57.0	26.2

FIG.9

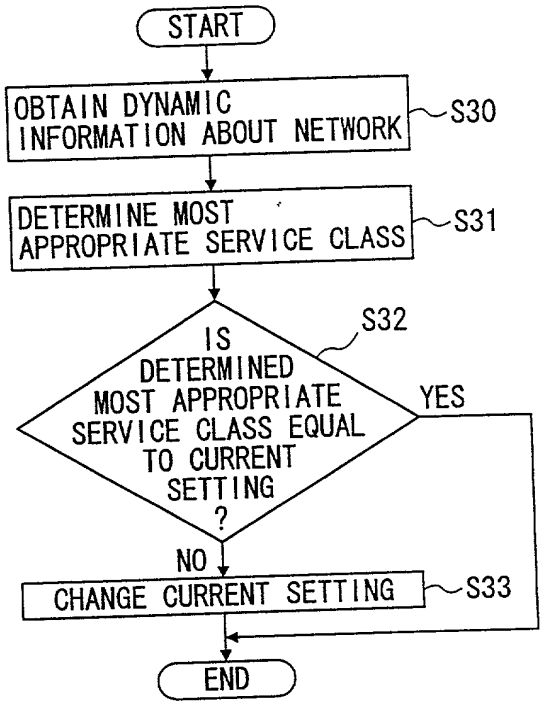

START
OBTAIN DYNAMIC INFORMATION ABOUT NETWORK
S30
DETERMINE MOST APPROPRIATE SERVICE CLASS
S31
S32
IS DETERMINED MOST APPROPRIATE SERVICE CLASS EQUAL TO CURRENT SETTING ?
YES
NO
CHANGE CURRENT SETTING
S33
END

FIG.10A

DESTINATION	HOST/NET	NEXT HOP	OUTPUT PORT	SERVICE CLASS	MOST APPROPRIATE ROUTE	
					SPEED	FEE
ISP-#1	NET	a	1		*	*
X	HOST	a	1	EF-PHB AF-PHB BEST EFFORT	*	*
INTERNET	NET	a	1	EF-PHB AF-PHB BEST EFFORT	*	*

FIG.10B

DESTINATION	SERVICE CLASS	MESSAGE-PACKET RETURN PERIOD	FEE INFORMATION	VALUE FOR SPEED AS FIRST PRIORITY	VALUE FOR FEE AS FIRST PRIORITY
X	EF-PHB	2	20	21.3	46.0
	AF-PHB	20	10	29.1	30.9
	BEST EFFORT	50	1	49.6	23.1

FIG.11

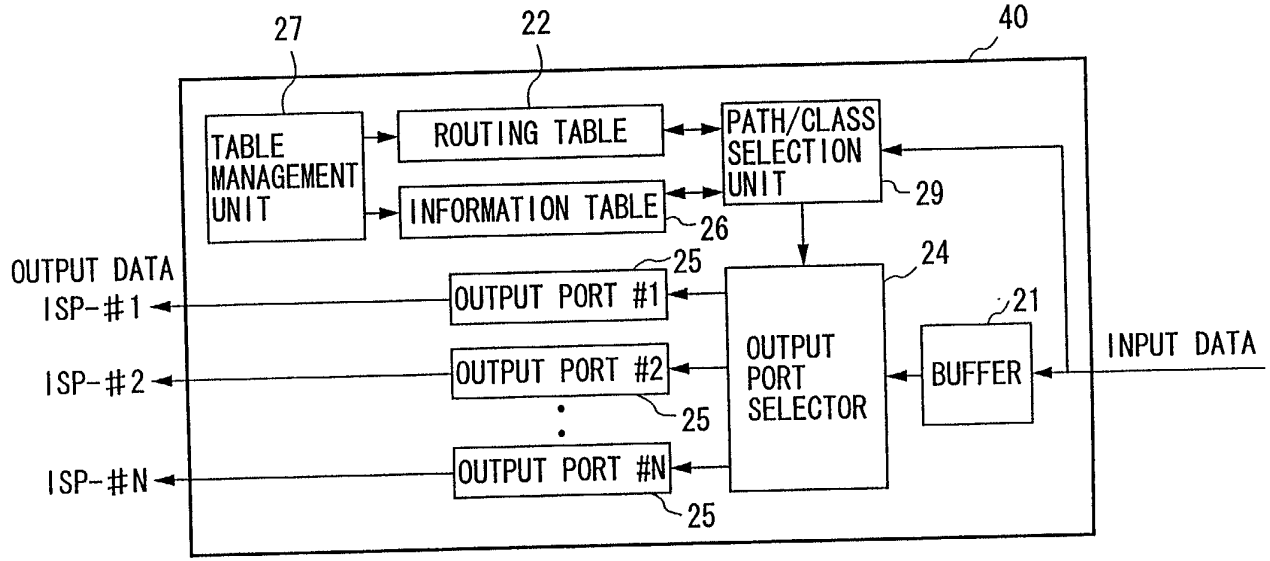

27
22
40
TABLE MANAGEMENT UNIT
ROUTING TABLE
INFORMATION TABLE
26
PATH/CLASS SELECTION UNIT
29
OUTPUT DATA
ISP-#1
ISP-#2
ISP-#N
25
OUTPUT PORT #1
OUTPUT PORT #2
OUTPUT PORT #N
25
25
24
OUTPUT PORT SELECTOR
21
BUFFER
INPUT DATA

FIG.12A

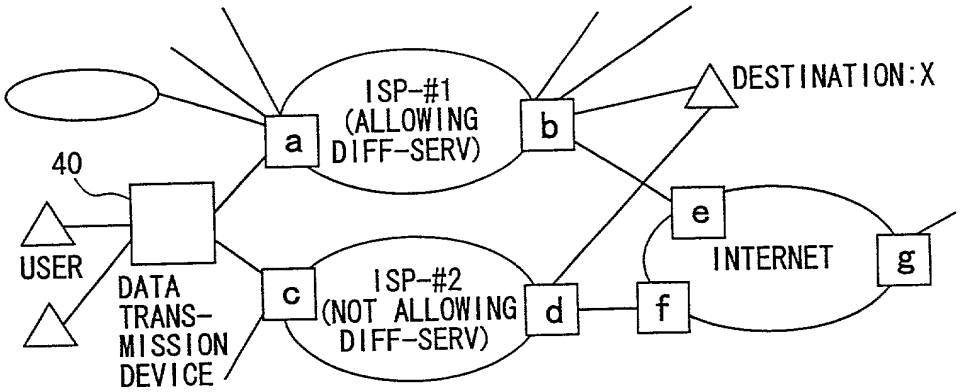

ISP-#1
(ALLOWING
DIFF-SERV)
a
b
DESTINATION:X
40
e
INTERNET
g
USER
DATA
TRANS-
MISSION
DEVICE
c
ISP-#2
(NOT ALLOWING
DIFF-SERV)
d
f

FIG.12B

DESTINATION	HOST/NET	NEXT HOP	OUTPUT PORT	SERVICE CLASS	MOST APPROPRIATE ROUTE	
					SPEED	FEE
ISP-#1	NET	a	1	-	*	*
ISP-#2	NET	c	2	-	*	*
X	HOST	a	1	EF-PHB AF-PHB BEST EFFORT	*	
		c	2	BEST EFFORT		*
INTERNET	NET	a	1	EF-PHB AF-PHB BEST EFFORT	*	
		c	2	BEST EFFORT		*

FIG.12C

DESTINATION	"VIA" NETWORK	SERVICE CLASS	MESSAGE-PACKET RETURN PERIOD	FEE INFORMATION	VALUE FOR SPEED AS FIRST PRIORITY	VALUE FOR FEE AS FIRST PRIORITY
X	ISP-#1	EF-PHB	1	20	20.2	43.3
		AF-PHB	4	10	17.1	24.6
		BEST EFFORT	20	1	40.9	19.3
	ISP-#2	(BEST EFFORT)	10	2	21.8	12.8

FIG.13A

DESTINATION	HOST/NET	NEXT HOP	OUTPUT PORT	SERVICE CLASS	MOST APPROPRIATE ROUTE	
					SPEED	FEE
ISP-#1	NET	a	1	–	*	*
ISP-#2	NET	c	2	–	*	*
X	HOST	a	1	EF-PHB AF-PHB BEST EFFORT		
		c	2	BEST EFFORT	*	*
INTERNET	NET	a	1	EF-PHB AF-PHB BEST EFFORT		
		c	2	BEST EFFORT	*	*

FIG.13B

DESTINATION	"VIA" NETWORK	SERVICE CLASS	MESSAGE-PACKET RETURN PERIOD	FEE INFORMATION	VALUE FOR SPEED AS FIRST PRIORITY	VALUE FOR FEE AS FIRST PRIORITY
X	ISP-#1	EF-PHB	2	20	20.3	43.3
		AF-PHB	10	10	19.5	25.7
		BEST EFFORT	40	1	42.7	20.0
	ISP-#2	(BEST EFFORT)	15	2	17.5	11.0

FIG.14

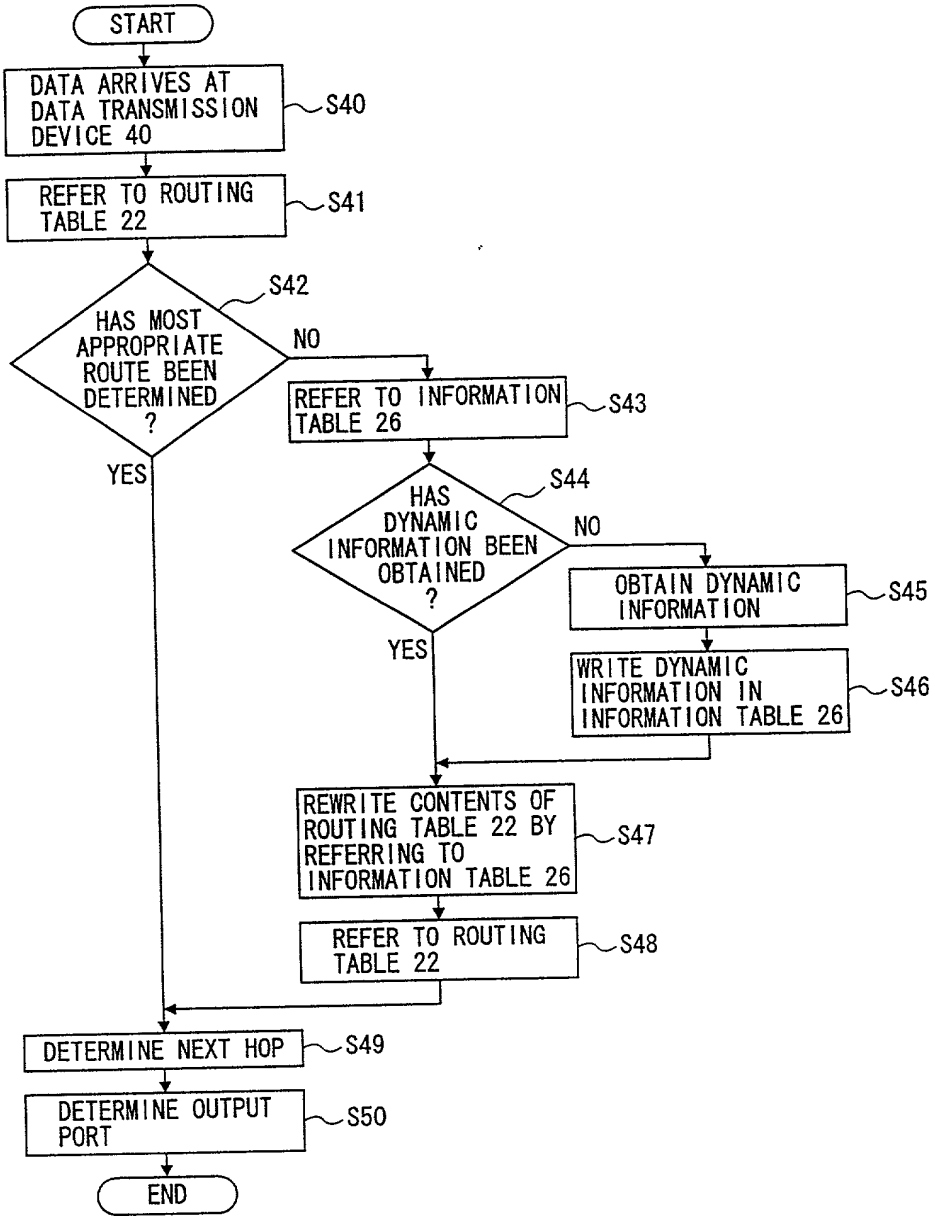

START
DATA ARRIVES AT DATA TRANSMISSION DEVICE 40
S40
REFER TO ROUTING TABLE 22
S41
HAS MOST APPROPRIATE ROUTE BEEN DETERMINED ?
S42
NO
YES
REFER TO INFORMATION TABLE 26
S43
HAS DYNAMIC INFORMATION BEEN OBTAINED ?
S44
NO
YES
OBTAIN DYNAMIC INFORMATION
S45
WRITE DYNAMIC INFORMATION IN INFORMATION TABLE 26
S46
REWRITE CONTENTS OF ROUTING TABLE 22 BY REFERRING TO INFORMATION TABLE 26
S47
REFER TO ROUTING TABLE 22
S48
DETERMINE NEXT HOP
S49
DETERMINE OUTPUT PORT
S50
END

FIG.15

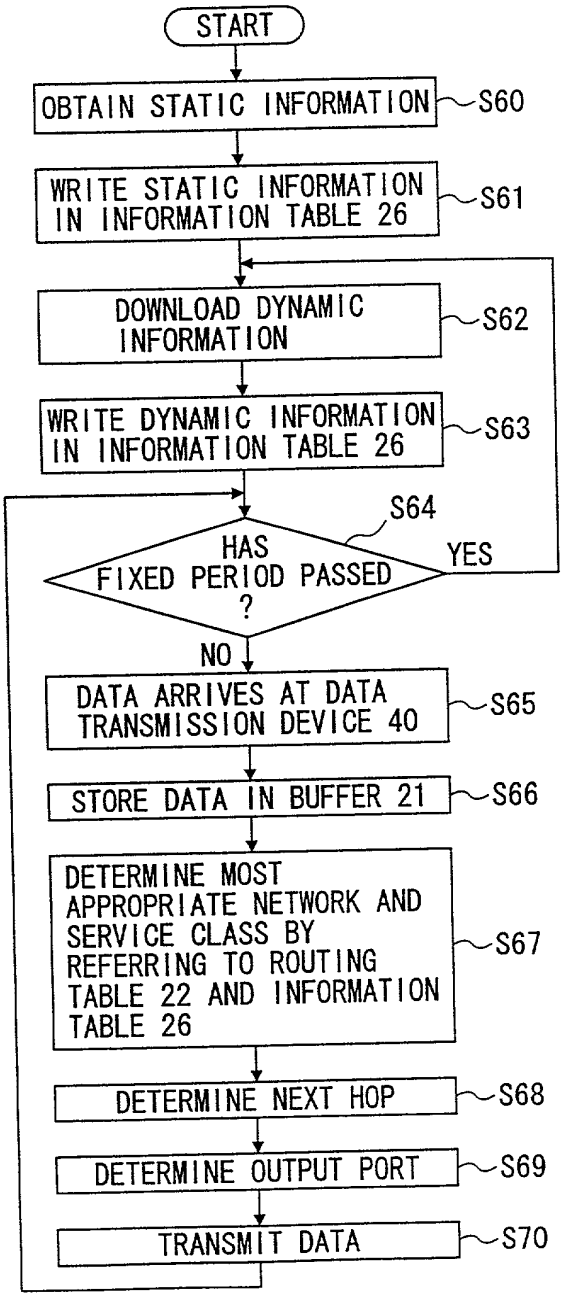

START
OBTAIN STATIC INFORMATION
S60
WRITE STATIC INFORMATION IN INFORMATION TABLE 26
S61
DOWNLOAD DYNAMIC INFORMATION
S62
WRITE DYNAMIC INFORMATION IN INFORMATION TABLE 26
S63
S64
HAS FIXED PERIOD PASSED ?
YES
NO
DATA ARRIVES AT DATA TRANSMISSION DEVICE 40
S65
STORE DATA IN BUFFER 21
S66
DETERMINE MOST APPROPRIATE NETWORK AND SERVICE CLASS BY REFERRING TO ROUTING TABLE 22 AND INFORMATION TABLE 26
S67
DETERMINE NEXT HOP
S68
DETERMINE OUTPUT PORT
S69
TRANSMIT DATA
S70

FIG.16

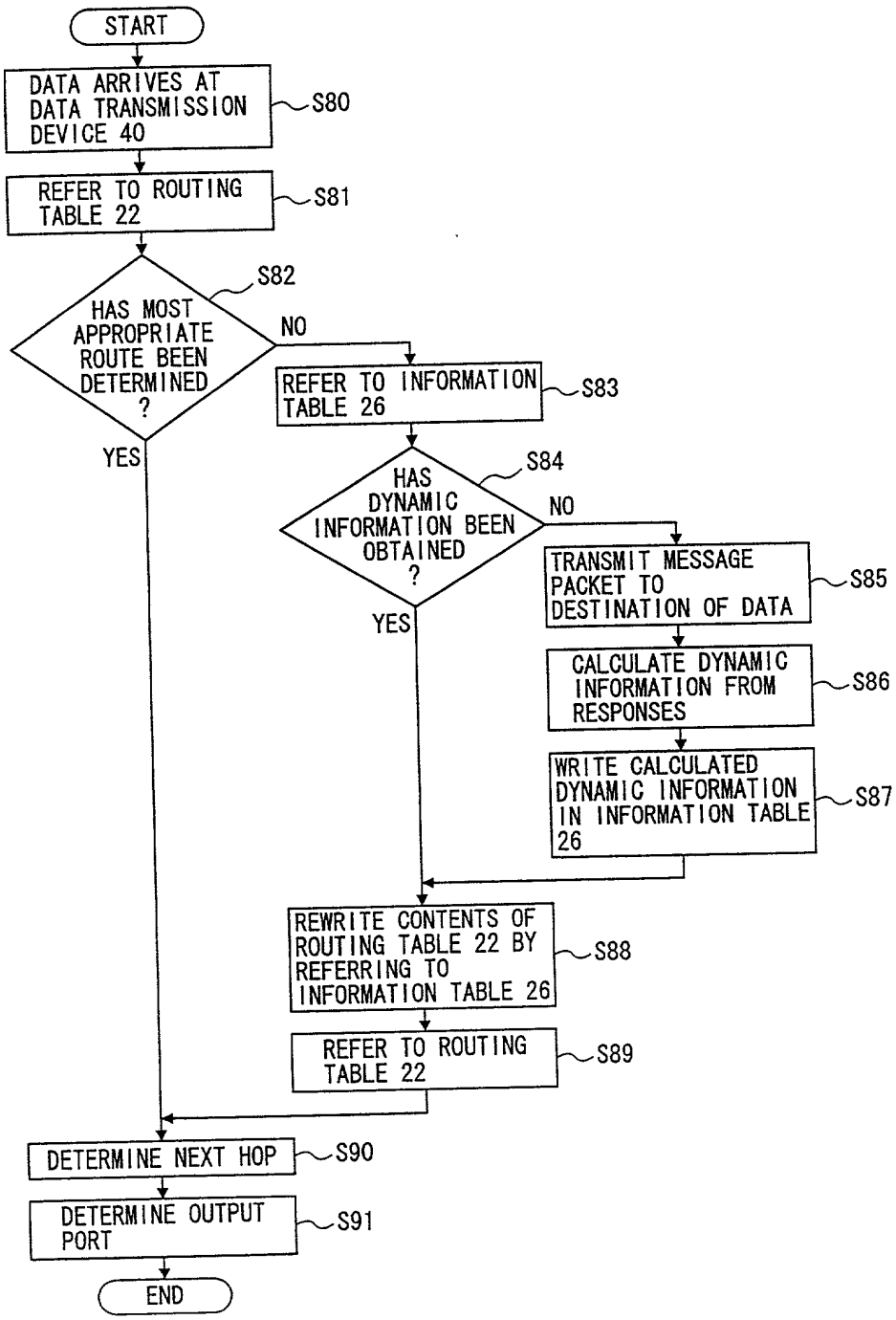

START
DATA ARRIVES AT DATA TRANSMISSION DEVICE 40
S80
REFER TO ROUTING TABLE 22
S81
HAS MOST APPROPRIATE ROUTE BEEN DETERMINED ?
S82
NO
YES
REFER TO INFORMATION TABLE 26
S83
HAS DYNAMIC INFORMATION BEEN OBTAINED ?
S84
NO
YES
TRANSMIT MESSAGE PACKET TO DESTINATION OF DATA
S85
CALCULATE DYNAMIC INFORMATION FROM RESPONSES
S86
WRITE CALCULATED DYNAMIC INFORMATION IN INFORMATION TABLE 26
S87
REWRITE CONTENTS OF ROUTING TABLE 22 BY REFERRING TO INFORMATION TABLE 26
S88
REFER TO ROUTING TABLE 22
S89
DETERMINE NEXT HOP
S90
DETERMINE OUTPUT PORT
S91
END

FIG.17A

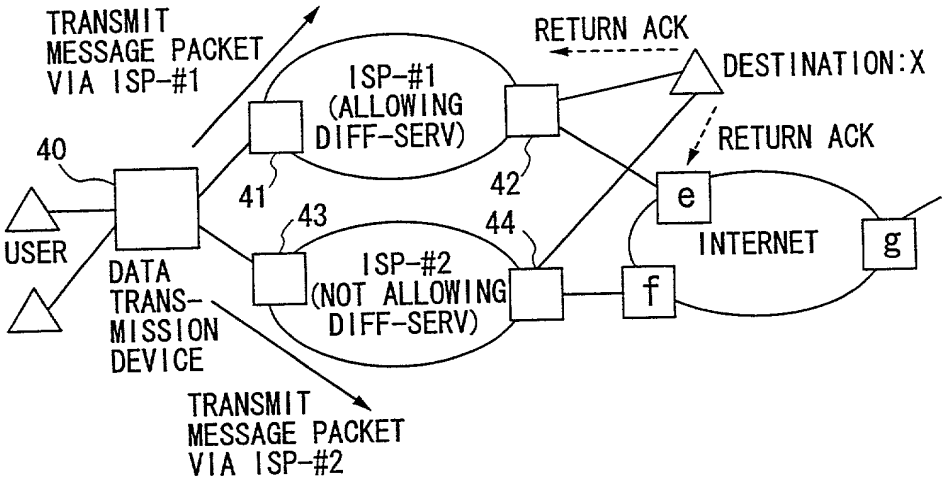

TRANSMIT
MESSAGE PACKET
VIA ISP-#1
ISP-#1
(ALLOWING
DIFF-SERV)
RETURN ACK
DESTINATION:X
RETURN ACK
40
41
42
43
44
e
INTERNET
g
USER
DATA
TRANS-
MISSION
DEVICE
ISP-#2
(NOT ALLOWING
DIFF-SERV)
f
TRANSMIT
MESSAGE PACKET
VIA ISP-#2

FIG.17B

DESTINATION	"VIA" NETWORK	SERVICE CLASS	MESSAGE-PACKET TRANSMISSION TIME	ACK-MESSAGE RECEPTION TIME	DATA TRANSMISSION TIME	FEE INFORMATION
X	ISP-#1	EF-PHB	19:03:41:347	19:04:01:241	00:00:19:894	20
		AF-PHB	19:03:41:347	19:04:09:530	00:00:28:183	10
		BEST EFFORT	19:03:41:347	19:04:39:911	00:00:58:564	1
	ISP-#2	BEST EFFORT	19:03:41:347	19:04:24:520	00:00:43:173	2

FIG.18

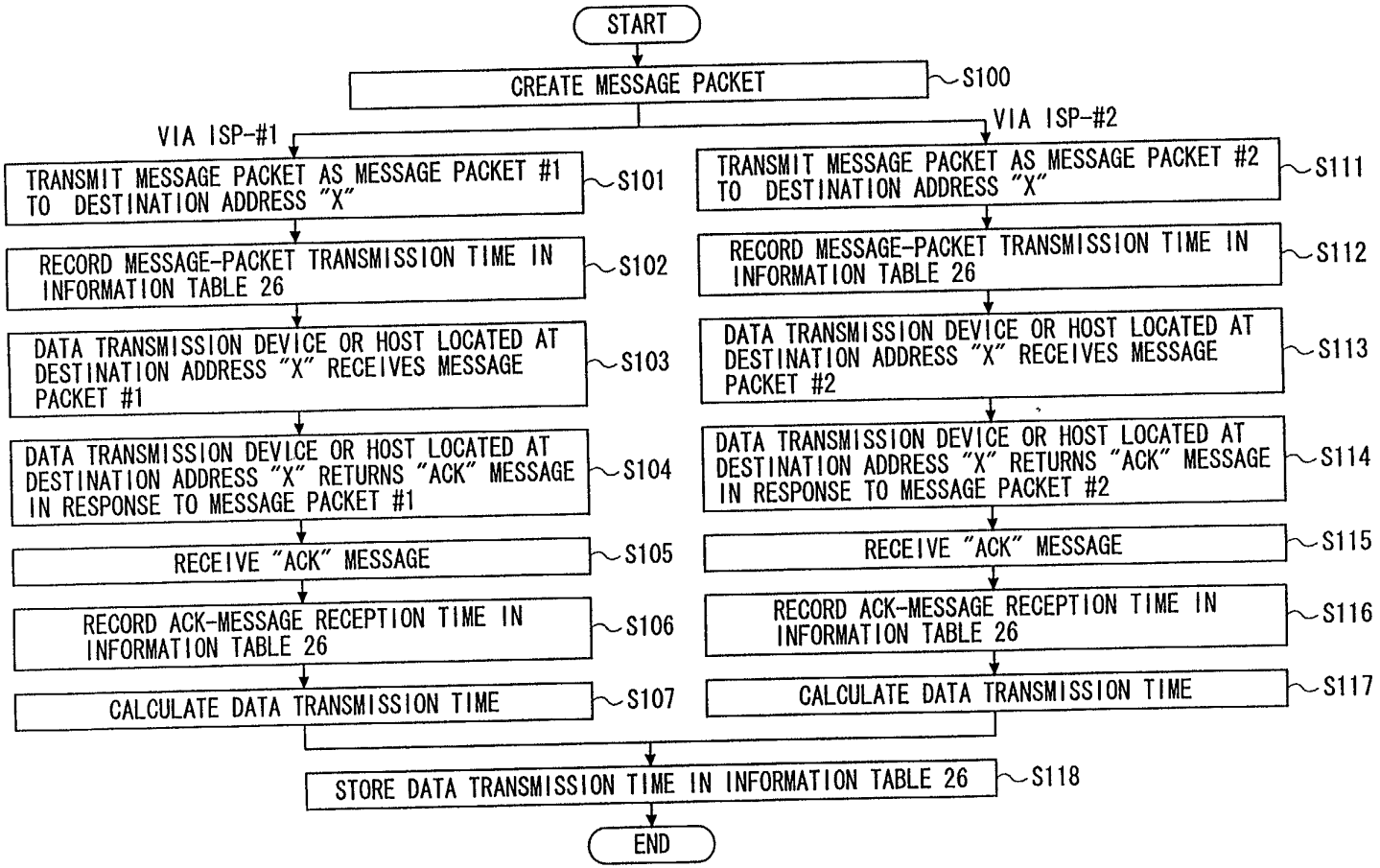

START
CREATE MESSAGE PACKET
S100
VIA ISP-#1
VIA ISP-#2
TRANSMIT MESSAGE PACKET AS MESSAGE PACKET #1 TO DESTINATION ADDRESS "X"
S101
RECORD MESSAGE-PACKET TRANSMISSION TIME IN INFORMATION TABLE 26
S102
DATA TRANSMISSION DEVICE OR HOST LOCATED AT DESTINATION ADDRESS "X" RECEIVES MESSAGE PACKET #1
S103
DATA TRANSMISSION DEVICE OR HOST LOCATED AT DESTINATION ADDRESS "X" RETURNS "ACK" MESSAGE IN RESPONSE TO MESSAGE PACKET #1
S104
RECEIVE "ACK" MESSAGE
S105
RECORD ACK-MESSAGE RECEPTION TIME IN INFORMATION TABLE 26
S106
CALCULATE DATA TRANSMISSION TIME
S107
TRANSMIT MESSAGE PACKET AS MESSAGE PACKET #2 TO DESTINATION ADDRESS "X"
S111
RECORD MESSAGE-PACKET TRANSMISSION TIME IN INFORMATION TABLE 26
S112
DATA TRANSMISSION DEVICE OR HOST LOCATED AT DESTINATION ADDRESS "X" RECEIVES MESSAGE PACKET #2
S113
DATA TRANSMISSION DEVICE OR HOST LOCATED AT DESTINATION ADDRESS "X" RETURNS "ACK" MESSAGE IN RESPONSE TO MESSAGE PACKET #2
S114
RECEIVE "ACK" MESSAGE
S115
RECORD ACK-MESSAGE RECEPTION TIME IN INFORMATION TABLE 26
S116
CALCULATE DATA TRANSMISSION TIME
S117
STORE DATA TRANSMISSION TIME IN INFORMATION TABLE 26
S118
END

FIG.19A

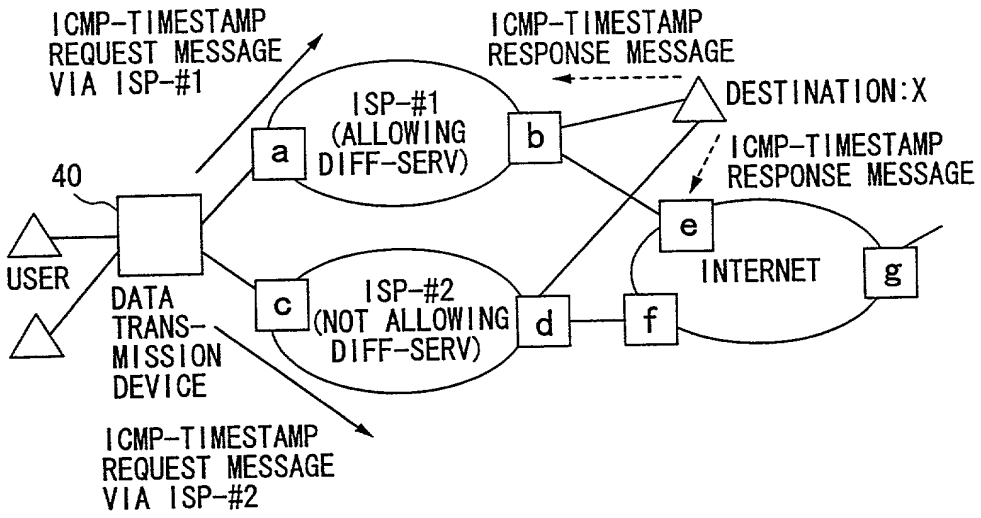

ICMP-TIMESTAMP
REQUEST MESSAGE
VIA ISP-#1
ICMP-TIMESTAMP
RESPONSE MESSAGE
DESTINATION:X
ISP-#1
(ALLOWING
DIFF-SERV)
a
b
ICMP-TIMESTAMP
RESPONSE MESSAGE
40
e
USER
INTERNET
g
c
ISP-#2
(NOT ALLOWING
DIFF-SERV)
d
f
DATA
TRANS-
MISSION
DEVICE
ICMP-TIMESTAMP
REQUEST MESSAGE
VIA ISP-#2

FIG.19B

VERSION	HEADER LENGTH	TOS	PACKET LENGTH
IDENTIFICATION		FLAG	FRAGMENT OFFSET
TTL	PROTOCOL TYPE = 01		HEADER CHECKSUM
SOURCE IP ADDRESS			
DESTINATION IP ADDRESS			
OPTION			PADDING
ICMP TYPE = 0D/0E	CODE (ALWAYS 0)		CHECKSUM
IDENTIFIER			SEQUENCE NUMBER
(ORIGINATE TIMESTAMP)			
(RECEIVE TIMESTAMP)			
(TRANSMIT TIMESTAMP)			

FIG.20

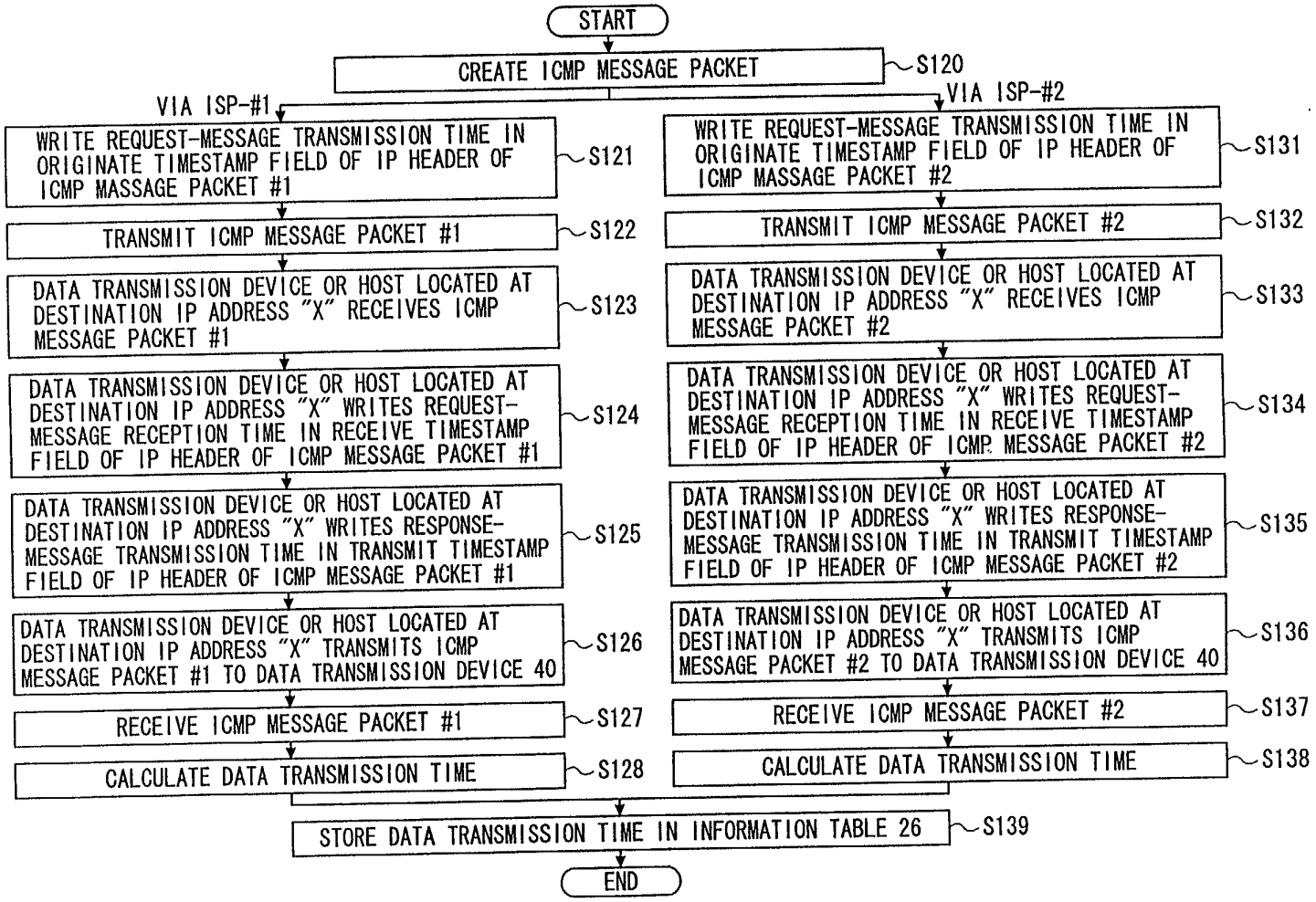

START
CREATE ICMP MESSAGE PACKET
S120
VIA ISP-#1
VIA ISP-#2
WRITE REQUEST-MESSAGE TRANSMISSION TIME IN ORIGINATE TIMESTAMP FIELD OF IP HEADER OF ICMP MASSAGE PACKET #1
S121
WRITE REQUEST-MESSAGE TRANSMISSION TIME IN ORIGINATE TIMESTAMP FIELD OF IP HEADER OF ICMP MASSAGE PACKET #2
S131
TRANSMIT ICMP MESSAGE PACKET #1
S122
TRANSMIT ICMP MESSAGE PACKET #2
S132
DATA TRANSMISSION DEVICE OR HOST LOCATED AT DESTINATION IP ADDRESS "X" RECEIVES ICMP MESSAGE PACKET #1
S123
DATA TRANSMISSION DEVICE OR HOST LOCATED AT DESTINATION IP ADDRESS "X" RECEIVES ICMP MESSAGE PACKET #2
S133
DATA TRANSMISSION DEVICE OR HOST LOCATED AT DESTINATION IP ADDRESS "X" WRITES REQUEST-MESSAGE RECEPTION TIME IN RECEIVE TIMESTAMP FIELD OF IP HEADER OF ICMP MESSAGE PACKET #1
S124
DATA TRANSMISSION DEVICE OR HOST LOCATED AT DESTINATION IP ADDRESS "X" WRITES REQUEST-MESSAGE RECEPTION TIME IN RECEIVE TIMESTAMP FIELD OF IP HEADER OF ICMP MESSAGE PACKET #2
S134
DATA TRANSMISSION DEVICE OR HOST LOCATED AT DESTINATION IP ADDRESS "X" WRITES RESPONSE-MESSAGE TRANSMISSION TIME IN TRANSMIT TIMESTAMP FIELD OF IP HEADER OF ICMP MESSAGE PACKET #1
S125
DATA TRANSMISSION DEVICE OR HOST LOCATED AT DESTINATION IP ADDRESS "X" WRITES RESPONSE-MESSAGE TRANSMISSION TIME IN TRANSMIT TIMESTAMP FIELD OF IP HEADER OF ICMP MESSAGE PACKET #2
S135
DATA TRANSMISSION DEVICE OR HOST LOCATED AT DESTINATION IP ADDRESS "X" TRANSMITS ICMP MESSAGE PACKET #1 TO DATA TRANSMISSION DEVICE 40
S126
DATA TRANSMISSION DEVICE OR HOST LOCATED AT DESTINATION IP ADDRESS "X" TRANSMITS ICMP MESSAGE PACKET #2 TO DATA TRANSMISSION DEVICE 40
S136
RECEIVE ICMP MESSAGE PACKET #1
S127
RECEIVE ICMP MESSAGE PACKET #2
S137
CALCULATE DATA TRANSMISSION TIME
S128
CALCULATE DATA TRANSMISSION TIME
S138
STORE DATA TRANSMISSION TIME IN INFORMATION TABLE 26
S139
END

FIG. 21

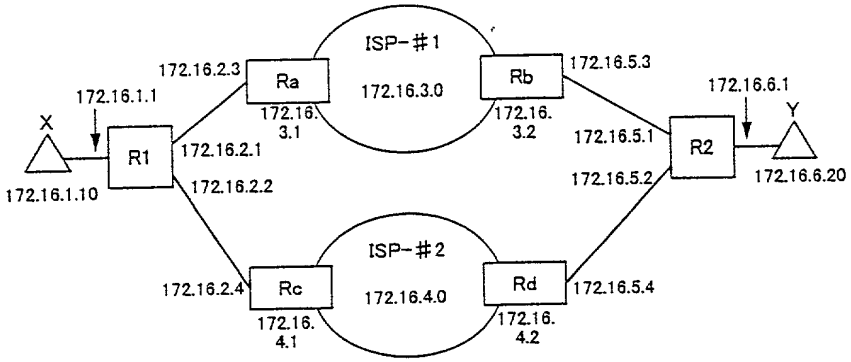

ISP-#1
172.16.3.0
ISP-#2
172.16.4.0
Ra
Rb
Rc
Rd
R1
R2
X
Y
172.16.1.1
172.16.1.10
172.16.2.1
172.16.2.2
172.16.2.3
172.16.2.4
172.16.3.1
172.16.3.2
172.16.4.1
172.16.4.2
172.16.5.1
172.16.5.2
172.16.5.3
172.16.5.4
172.16.6.1
172.16.6.20

FIG.22A

DESTINATION	"VIA" NETWORK	MESSAGE-PACKET RETURN PERIOD	FEE INFORMATION
172.16.2.20	ISP-#1	-	1
	ISP-#2	-	1

FIG.22B

DESTINATION IP ADDRESS	HOST/NET	NEXT HOP	OUTPUT PORT	MOST APPROPRIATE ROUTE
172.16.1.10	HOST	-	1	*
172.16.2.3		-	2	*
172.16.2.4		-	3	*
172.16.3.0/24	NET	172.16.2.3	2	*
172.16.4.0/24	NET	172.16.2.4	3	*
172.16.5.0/24	NET	172.16.2.3 172.16.2.4	2 3	
172.16.6.0/24	NET	172.16.2.3 172.16.2.4	2 3	

FIG.23A

VERSION	HEADER LENGTH	TOS	PACKET LENGTH		
IDENTIFICATION			FLAG	FRAGMENT OFFSET	
TTL		PROTOCOL TYPE = 01	HEADER CHECKSUM		
SOURCE IP ADDRESS = 172.16.2.1					
DESTINATION IP ADDRESS = 172.16.6.20					
OPTION TYPE = 10000011		OPTION LENGTH	POINTER		ADDRESS 1 =
172.16.2.1 (R1)					ADDRESS 2 =
172.16.3.1 (Ra)					ADDRESS 3 =
172.16.6.20 (HOST Y)					PADDING
ICMP TYPE = 0D		CODE (ALWAYS 0)	CHECKSUM		
IDENTIFIER = DEAD			SEQUENCE NUMBER = 0000		
ORIGINATE TIMESTAMP = 19:03:41:347					
(RECEIVE TIMESTAMP)					
(TRANSMIT TIMESTAMP)					

FIG.23B

VERSION	HEADER LENGTH	TOS	PACKET LENGTH	
IDENTIFICATION			FLAG	FRAGMENT OFFSET
TTL		PROTOCOL TYPE = 01	HEADER CHECKSUM	
SOURCE IP ADDRESS = 172.16.2.1				
DESTINATION IP ADDRESS = 172.16.6.20				
OPTION TYPE = 10000011	OPTION LENGTH	POINTER	ADDRESS 1 =	
172.16.2.1 (R1)			ADDRESS 2 =	
172.16.4.1 (Rc)			ADDRESS 3 =	
172.16.6.20 (HOST Y)			PADDING	
ICMP TYPE = 0D	CODE (ALWAYS 0)	CHECKSUM		
IDENTIFIER = DEAE		SEQUENCE NUMBER = 0000		
ORIGINATE TIMESTAMP = 19:03:41:347				
(RECEIVE TIMESTAMP)				
(TRANSMIT TIMESTAMP)				

FIG.24A

DESTINATION	HOST/NET	NEXT HOP	OUTPUT PORT	MOST APPROPRIATE ROUTE
172.16.1.0/24	NET	172.16.2.1	1	*
172.16.2.0/24	NET	-	1	*
172.16.3.0/24	NET	-	2	*
172.16.4.0/24	NET	172.16.2.1	2	*
172.16.5.0/24	NET	172.16.3.2	2	*
172.16.6.0/24	NET	172.16.3.2	2	*

FIG.24B

DESTINATION	HOST/NET	NEXT HOP	OUTPUT PORT	MOST APPROPRIATE ROUTE
172.16.1.0/24	NET	172.16.3.1	1	*
172.16.2.0/24	NET	172.16.3.1	1	*
172.16.3.0/24	NET	-	1	*
172.16.4.0/24	NET	172.16.5.1	2	*
172.16.5.0/24	NET	-	2	*
172.16.6.0/24	NET	172.16.5.1	2	*

FIG.24C

DESTINATION	HOST/NET	NEXT HOP	OUTPUT PORT	MOST APPROPRIATE ROUTE
172.16.1.0/24	NET	172.16.5.3 172.16.5.4	1 2	*
172.16.2.0/24	NET	172.16.5.3 172.16.5.4	1 2	*
172.16.3.0/24	NET	172.16.5.3	1	*
172.16.4.0/24	NET	172.16.5.4	2	*
172.16.5.0/24	NET	-	1	*
172.16.6.20	HOST	-	3	*

FIG.25A

VERSION	HEADER LENGTH	TOS	PACKET LENGTH
IDENTIFICATION			FLAG / FRAGMENT OFFSET
TTL	PROTOCOL TYPE = 01		HEADER CHECKSUM
SOURCE IP ADDRESS = 172.16.6.20			
DESTINATION IP ADDRESS = 172.16.2.1			
ICMP TYPE = 0E	CODE (ALWAYS 0)		CHECKSUM
IDENTIFIER = DEAD			SEQUENCE NUMBER = 0000
ORIGINATE TIMESTAMP = 19:03:41:347			
RECEIVE TIMESTAMP = 19:04:01:241			
TRANSMIT TIMESTAMP = 19:04:01:583			

FIG.25B

DESTINATION	"VIA" NETWORK	MESSAGE-PACKET RETURN PERIOD	FEE INFORMATION
Y	ISP-#1	00:00:19:894	1
	ISP-#2	00:00:28:183	1

FIG.25C

DESTINATION	HOST/NET	NEXT HOP	OUTPUT PORT	MOST APPROPRIATE ROUTE
172.16.1.10	HOST	-	1	*
172.16.2.3		-	2	*
172.16.2.4		-	3	*
172.16.3.0/24	NET	172.16.2.3	2	*
172.16.4.0/24	NET	172.16.2.4	3	*
172.16.5.0/24	NET	172.16.2.3 172.16.2.4	2 3	*
172.16.6.0/24	NET	172.16.2.3 172.16.2.4	2 3	*

FIG.26

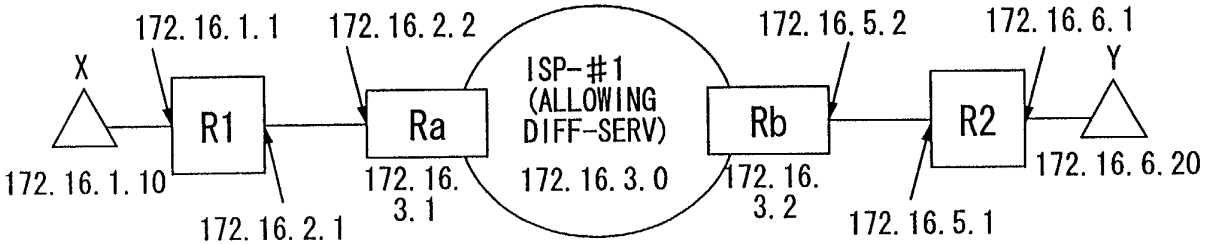

172.16.1.1
172.16.2.2
172.16.5.2
172.16.6.1
X
Y
ISP-#1
(ALLOWING
DIFF-SERV)
R1
Ra
Rb
R2
172.16.1.10
172.16.2.1
172.16.
3.1
172.16.3.0
172.16.
3.2
172.16.5.1
172.16.6.20

FIG.27A

DESTINATION	SERVICE CLASS	MESSAGE-PACKET RETURN PERIOD	FEE INFORMATION	VALUE FOR SPEED AS FIRST PRIORITY	VALUE FOR FEE AS FIRST PRIORITY
172.16.6.20	EF-PHB	-	10		
	AF-PHB	-	5		
	BEST EFFORT	-	1		

FIG.27B

DESTINATION	HOST/NET	NEXT HOP	OUTPUT PORT	SERVICE CLASS	MOST APPROPRIATE ROUTE
172.16.1.10	HOST	-	1	-	*
172.16.2.0/24	NET	-	2	-	*
172.16.3.0/24	NET	172.16.2.2	2	EF-PHB AF-PHB BEST EFFORT	
172.16.5.0/24	NET	172.16.2.2	2	EF-PHB AF-PHB BEST EFFORT	
172.16.6.0/24	NET	172.16.2.2	2	EF-PHB AF-PHB BEST EFFORT	

FIG.28A

VERSION	HEADER LENGTH	EF-PHB	PACKET LENGTH	
IDENTIFICATION			FLAG	FRAGMENT OFFSET
TTL		PROTOCOL TYPE = 01	HEADER CHECKSUM	
SOURCE IP ADDRESS = 172.16.2.1				
DESTINATION IP ADDRESS = 172.16.6.20				
ICMP TYPE = 0D		CODE (ALWAYS 0)	CHECKSUM	
IDENTIFIER = DEAD			SEQUENCE NUMBER = 0000	
ORIGINATE TIMESTAMP = 19:03:41:347				
(RECEIVE TIMESTAMP)				
(TRANSMIT TIMESTAMP)				

FIG.28B

VERSION	HEADER LENGTH	AF-PHB	PACKET LENGTH	
IDENTIFICATION			FLAG	FRAGMENT OFFSET
TTL		PROTOCOL TYPE = 01	HEADER CHECKSUM	
SOURCE IP ADDRESS = 172.16.2.1				
DESTINATION IP ADDRESS = 172.16.6.20				
ICMP TYPE = 0D		CODE (ALWAYS 0)	CHECKSUM	
IDENTIFIER = DEAE			SEQUENCE NUMBER = 0000	
ORIGINATE TIMESTAMP = 19:03:41:347				
(RECEIVE TIMESTAMP)				
(TRANSMIT TIMESTAMP)				

FIG.28C

VERSION	HEADER LENGTH	BEST EFFORT	PACKET LENGTH
IDENTIFICATION		FLAG	FRAGMENT OFFSET
TTL	PROTOCOL TYPE = 01	HEADER CHECKSUM	
SOURCE IP ADDRESS = 172.16.2.1			
DESTINATION IP ADDRESS = 172.16.6.20			
ICMP TYPE = 0D	CODE (ALWAYS 0)	CHECKSUM	
IDENTIFIER = DEAF		SEQUENCE NUMBER = 0000	
ORIGINATE TIMESTAMP = 19:03:41:347			
(RECEIVE TIMESTAMP)			
(TRANSMIT TIMESTAMP)			

FIG.29A

DESTINATION	HOST/NET	NEXT HOP	OUTPUT PORT	SERVICE CLASS	MOST APPROPRIATE ROUTE
172.16.1.0/24	NET	172.16.2.1	1	-	*
172.16.2.0/24	NET	-	1	-	*
172.16.3.0/24	NET	-	2	EF-PHB AF-PHB BEST EFFORT	
172.16.5.0/24	NET	172.16.3.2	2	EF-PHB AF-PHB BEST EFFORT	
172.16.6.0/24	NET	172.16.3.2	2	EF-PHB AF-PHB BEST EFFORT	

FIG.29B

DESTINATION	HOST/NET	NEXT HOP	OUTPUT PORT	SERVICE CLASS	MOST APPROPRIATE ROUTE
172.16.1.0/24	NET	172.16.3.1	1	EF-PHB AF-PHB BEST EFFORT	
172.16.2.0/24	NET	172.16.3.1	1	EF-PHB AF-PHB BEST EFFORT	
172.16.3.0/24	NET		1	EF-PHB AF-PHB BEST EFFORT	
172.16.5.0/24	NET		2	-	*
172.16.6.0/24	NET	172.16.5.1	2	-	*

FIG.29C

DESTINATION	HOST/NET	NEXT HOP	OUTPUT PORT	SERVICE CLASS	MOST APPROPRIATE ROUTE
172.16.1.0/24	NET	172.16.5.2	1	EF-PHB AF-PHB BEST EFFORT	
172.16.2.0/24	NET	172.16.5.2	1	EF-PHB AF-PHB BEST EFFORT	
172.16.3.0/24	NET	172.16.5.2	1	EF-PHB AF-PHB BEST EFFORT	
172.16.5.0/24	NET	-	1		*
172.16.6.20	HOST	-	2		*

FIG.30A

VERSION	HEADER LENGTH	TOS	PACKET LENGTH
IDENTIFICATION		FLAG	FRAGMENT OFFSET
TTL	PROTOCOL TYPE = 01		HEADER CHECKSUM
SOURCE IP ADDRESS = 172.16.20			
DESTINATION IP ADDRESS = 172.16.2.1			
ICMP TYPE = 0E	CODE (ALWAYS 0)		CHECKSUM
IDENTIFIER = DEAD			SEQUENCE NUMBER = 0000
ORIGINATE TIMESTAMP = 19:03:41:347			
RECEIVE TIMESTAMP = 19:04:01:241			
TRANSMIT TIMESTAMP = 19:04:01:583			

FIG.30B

DESTINATION	SERVICE CLASS	MESSAGE-PACKET RETURN PERIOD	FEE INFORMATION	VALUE FOR SPEED AS FIRST PRIORITY	VALUE FOR FEE AS FIRST PRIORITY
172.16.6.20	EF-PHB	00:00:19:894	20	32.4	50.8
	AF-PHB	00:00:28:183	10	28.2	30.5
	BEST EFFORT	00:00:58:564	1	39.4	18.7

FIG.30C

DESTINATION	HOST/NET	NEXT HOP	OUTPUT PORT	SERVICE CLASS	MOST APPROPRIATE ROUTE	
					SPEED	FEE
172.16.1.10	HOST	-	1	-	*	*
172.16.2.0/24	NET	-	2	-	*	*
172.16.3.0/24	NET	172.16.2.2	2	EF-PHB AF-PHB BEST EFFORT		
172.16.5.0/24	NET	172.16.2.2	2	EF-PHB AF-PHB BEST EFFORT1	*	
172.16.6.0/24	NET	172.16.2.2	2	EF-PHB AF-PHB BEST EFFORT1		*